

Panasonic®

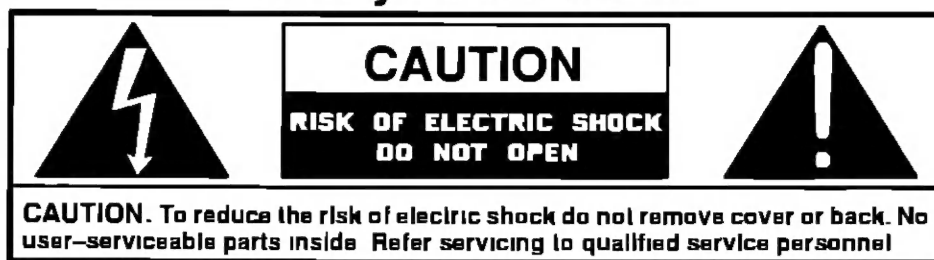
Color Monitor/Receiver

Operating Instructions

Read these instructions completely before operating this set.

Contents subject to change without notice or obligation.

Safety Instructions



The lightning flash with arrow-head within a triangle is intended to tell the user that parts inside the product are a risk of electric shock to persons.

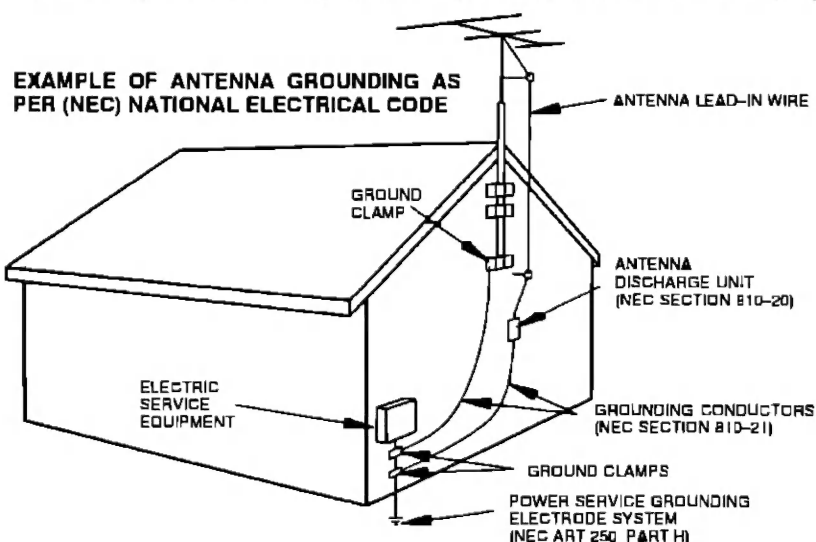


The exclamation point within a triangle is intended to tell the user that important operating and servicing instructions are in the papers with the appliance.

Note To CATV System Installer: This reminder is provided to call the CATV system installer's attention to Article 820-40 of the NEC that provides guidelines for proper grounding and, in particular, specifies that the cable ground shall be connected to the grounding system of the building, as close to the point of cable entry as practical.

Safety Instructions For Television Receivers

- 1 Read and apply the operating instructions provided with your television receiver.
- 2 Read all of the instructions given here and retain them for later use.
- 3 Unplug this television receiver from the wall outlet before cleaning. Do not use liquid or aerosol cleaners. Use a damp cloth for cleaning.
- 4 Do not use attachments not recommended by the television receiver manufacturer as they may cause hazards.
- 5 Do not use this television receiver near water. For example, Avoid placing it near a bathtub, washbowl, kitchen sink, or laundry tub, in a wet basement, or near a swimming pool, etc.
- 6 Do not place this television receiver on an unstable cart, stand, or table. The television receiver may fall, causing serious injury to a child or adult, and serious damage to the appliance. Use only with a cart or stand recommended by the manufacturer, or sold with the television receiver. Wall or shelf mounting should follow the manufacturer's instructions, and should use a mounting kit approved by the manufacturer.
- 6A An appliance and cart combination should be moved with care. Quick stops, excessive force, and uneven surfaces may cause the appliance and cart combination to overturn.
- 7 Slots and openings in the cabinet and the back or bottom are provided for ventilation, and to insure reliable operation of the television receiver and to protect it from overheating. These openings must not be blocked or covered. The openings should never be blocked by placing the television receiver on a bed, sofa, rug, or other similar surface. This television receiver should never be placed near or over a radiator or heat register. This television receiver should not be placed in a built-in installation such as a bookcase unless proper ventilation is provided.
- 8 Operate only from the type of power source indicated on the marking label. If you are not sure of the type of power supplied to your home, consult your television dealer or local power company. For television receivers designed to operate from battery power, refer to the operating instructions.
- 9 This television receiver is equipped with a polarized alternating-current line plug (a plug having one blade wider than the other). This plug will fit into the power outlet only one way. This is a safety feature. If you are unable to insert the plug fully into the outlet, try reversing the plug. If the plug should still fail to fit, contact your electrician to replace your obsolete outlet. Do not defeat the safety purpose of the polarized plug.
- 10 Do not allow anything to rest on the power cord. Do not locate this television receiver where the cord will be abused by persons walking on it.
- 11 Follow all warnings and instructions marked on the television receiver.
- 12 Do not overload wall outlets and extension cords as this can result in fire or electric shock.
- 13 Never push objects of any kind into this television receiver through cabinet slots as they may touch dangerous voltage points or short out parts that could result in a fire or electric shock. Never spill liquid of any kind on the television receiver.



14. If an outside antenna is connected to the television equipment, be sure the antenna system is grounded so as to provide some protection against voltage surges and built up static charges. In the U.S. Section 810 of the National Electrical Code and in Canada Part 1 of the Canadian Electrical Code provides information with respect to proper grounding of the mast and supporting structure, grounding of the lead-in wire to an antenna discharge unit, size of grounding conductors, location of antenna-discharge unit, connection to grounding electrodes, and requirements for the grounding electrode. See Figure.
15. For added protection for this television receiver during a lightning storm, or when it is left unattended and unused for long periods of time, unplug it from the wall outlet and disconnect the antenna. This will prevent damage to the receiver due to lightning and power-line surges.
16. An outside antenna system should not be located in the vicinity of overhead power lines or other electric light or power circuits, or where it can fall into such power lines or circuits. When installing an outside antenna system extreme care should be taken to keep from touching such power lines or circuits as contact with them might be fatal.
17. Unplug this television receiver from the wall outlet, and refer servicing to qualified service personnel under the following conditions:
 - a. When the power cord or plug is damaged or frayed.
 - b. If liquid has been spilled into the television receiver.
 - c. If the television receiver has been exposed to rain or water.
 - d. If the television receiver does not operate normally by following the operating instructions. Adjust only those controls that are covered by the operating instructions as improper adjustment of other controls may result in damage and will often require extensive work by a qualified technician to restore the television receiver to normal operation.
 - e. If the television receiver has been dropped or the cabinet has been damaged.
 - f. When the television receiver exhibits a distinct change in performance – this indicates a need for service.
18. Do not attempt to service this television receiver yourself as opening or removing covers may expose you to dangerous voltage or other hazards. Refer all servicing to qualified service personnel.
19. When replacement parts are required, be sure the service technician has used replacement parts specified by the manufacturer that have the same characteristics as the original part. Unauthorized substitutions may result in fire, electric shock, or other hazards.
20. Upon completion of any service or repairs to this television receiver, ask the service technician to perform routine safety checks to determine that the television is in safe operating condition.
21. **WARNING: To prevent fire or shock hazard, do not expose this appliance to rain or moisture.**
22. **CAUTION: TO PREVENT ELECTRIC SHOCK DO NOT USE THIS (POLARIZED) PLUG WITH AN EXTENSION CORD, RECEPTACLE OR OTHER OUTLET UNLESS THE BLADES CAN BE FULLY INSERTED TO PREVENT BLADE EXPOSURE.**

NOTE: This equipment is designed to operate in the U.S.A., Canada and other countries where the broadcasting system and AC house current is exactly the same as in the U.S.A. and Canada.

Important Information Regarding Use of Video Games, Computers, Teletext or Other Fixed Image Displays.

The extended use of fixed image program material can cause a permanent "shadow image" on the picture tube. This background image is viewable on normal programs in the form of a stationary fixed image. This type of irreversible picture tube deterioration can be limited by observing the following steps:

- A. Reduce the brightness/contrast setting to a minimum viewing level.
- B. Do not display the fixed image for extended periods of time.
- C. Turn the power off when not in actual use.

NOTE: The marking or retained image on the picture tube resulting from fixed image use is not an operating defect and as such is not covered by Warranty. This product is not designed to display fixed image patterns for extended periods of time.

Specifications

Power Source:	120V 60Hz, AC
Channel Capability:	155 channels (See Chart) VHF 2~13, UHF 14~69 Cable 99 channels
Video Input Jack:	1V p-p 75 ohm, BNC connector
Audio Input Jack:	500mV rms, RCA connector
S-Video Input Jack:	S-Video (Y-C) connector
Video Throughout Jack:	BNC connector
Audio Throughout Jack:	RCA connector
S-Video Throughout Jack:	S-Video (Y-C) Connector

Channel Capability Chart

BAND	USA/CAN
VHF	12
UHF	56
CABLE (Mid-Band)	15
CABLE (Super Band)	14
CABLE (Hyper Band)	28
CABLE (Ultra Band)	30
TOTAL CHANNELS	155

Specifications are subject to change without notice or obligation.

Introduction

Congratulations on Your New Purchase

Your new video component features an all solid state chassis which is designed to give you many years of enjoyment. It was thoroughly tested and adjusted at the factory for best performance.

In order for you to take full advantage of your new video component, please read and follow the installation and operating instructions supplied with this product.

Customer's Record

The model and serial number of this product may be found on its back cover. You should note the model and serial number in the space provided and retain this book as a permanent record of your purchase to aid in identification in the event of theft or loss.

Model Number _____ Serial Number _____

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Installation

Monitor/Receiver Location

Locate for comfortable viewing. Avoid placing where sunlight or other bright light (including reflections) will fall on the screen.

Adequate ventilation is essential to prevent internal component failure. Keep away from areas of excessive heat or moisture. Do not position magnetic equipment (motors, fans, other speakers, etc.) nearby.

Optional External Equipment Connections

The Video/Audio connections between components can be made with shielded video and audio cables. For best performance, video cables should utilize 75 ohm coaxial shielded wire. Cables are available from your dealer or electronic supply house.

Before you purchase any cables, be sure you know what type of output and input connectors your various components require. Also determine the length of cable you'll need.

Power Supply Cord

MAKE SURE PLUG IS INSERTED FULLY INTO RECEPTACLE

This product is equipped with a three-wire grounding type plug – a plug with two blades and a third pin which is round. This plug will only fit into a grounding type outlet.

This is a safety feature. If you are unable to insert the plug into the outlet, contact your electrician to replace your obsolete outlet. **DO NOT DEFEAT THE SAFETY PURPOSE OF THE GROUNDING TYPE PLUG.**

CAUTION: TO PREVENT ELECTRIC SHOCK DO NOT USE THIS (POLARIZED) PLUG WITH AN EXTENSION CORD, RECEPTACLE OR OTHER OUTLET UNLESS THE BLADES CAN BE FULLY INSERTED TO PREVENT BLADE EXPOSURE.



Remote Control Battery Installation & Replacement

Batteries: Use two "AA" batteries.

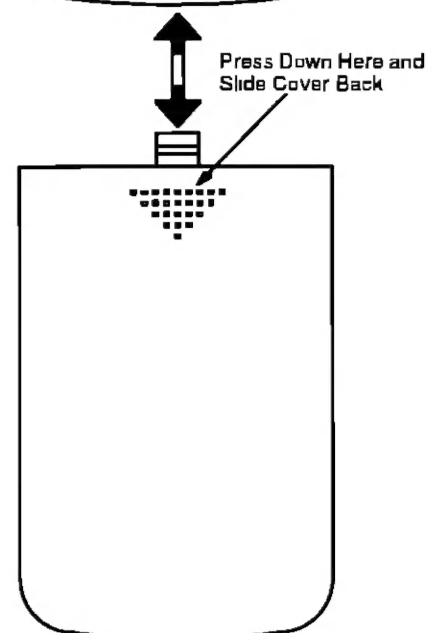
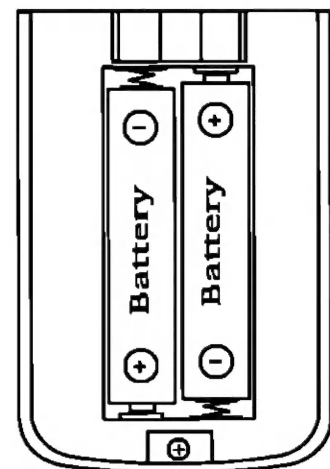
1. Turn the Transmitter face down. To remove bottom cover, press down on marking and slide cover off in the direction indicated.
2. Install the batteries as shown in the battery compartment (Polarity (+) or (-) must be correct).
3. Replace the cover and slide in reverse until the lock snaps.

Precaution on Battery Use

Incorrect installation can cause battery leakage and corrosion that will damage the Remote Control Transmitter.

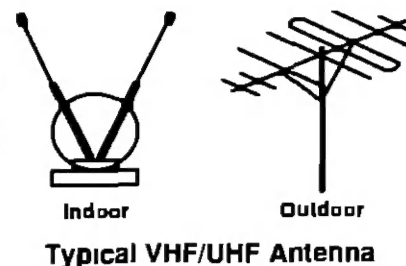
Observe the Following Precautions.

1. Batteries must be replaced as a pair.
2. Do not combine a used battery with a new one.
3. Do not mix battery types (Example "Zinc Carbon" with "Alkaline").
4. Do not attempt to charge, short-circuit, disassemble, heat, or burn used batteries.
5. Battery replacement is necessary when Remote Control reacts sporadically or stops operating the Receiver.

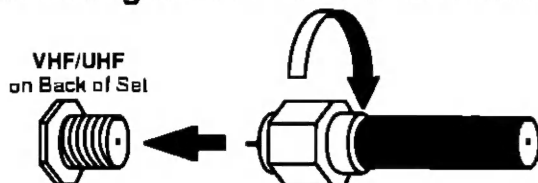


Antenna/Cable Connections

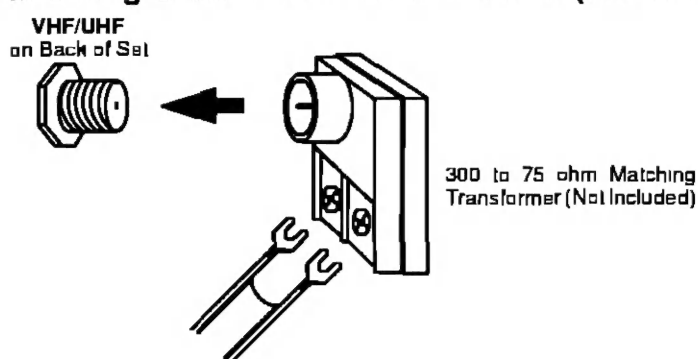
Antenna Connection – For proper reception of VHF/UHF channels an external antenna is required. For best reception an outdoor antenna is recommended. Antenna Mode must be set to TV (Refer to the Set-Up Icon, Antenna Mode section.)



Incoming Cable From Home Antenna (75 Ohm)

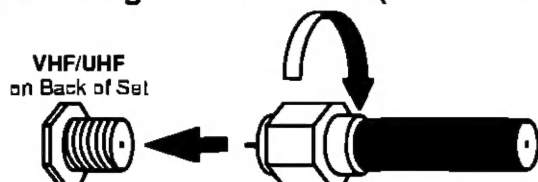


Incoming Cable From Home Antenna (300 Ohm)



Cable Connection – For reception of cable channels (01–125) connect the cable supplied by your local cable company. Antenna Mode must be set to CABLE (Refer to the Set-Up Icon, Antenna Mode section.)

Incoming 75 Ohm Cable (From Cable Company)



NOTE • Certain cable systems offset some channels to reduce interference or have Premium (scrambled) channels. A cable converter box is required for proper reception. Check with your local Cable company for its compatibility requirements.

Other Video Equipment

VCRs, Video Disc Players, Computers, TV games, and Teletext equipment can also be connected to the antenna input connection.

Care and Cleaning

Picture Tube (Turn set off)

Use a mild soap solution or window cleaner and a clean cloth. DO NOT USE ABRASIVE CLEANERS. Avoid excessive moisture and wipe dry.

Plastic Cabinets

Wipe the cabinet with a soft cloth dampened with water or a mild detergent solution and wipe dry with a soft clean cloth. Avoid excessive moisture. Do not use benzene, thinners or other petroleum based cleaners.

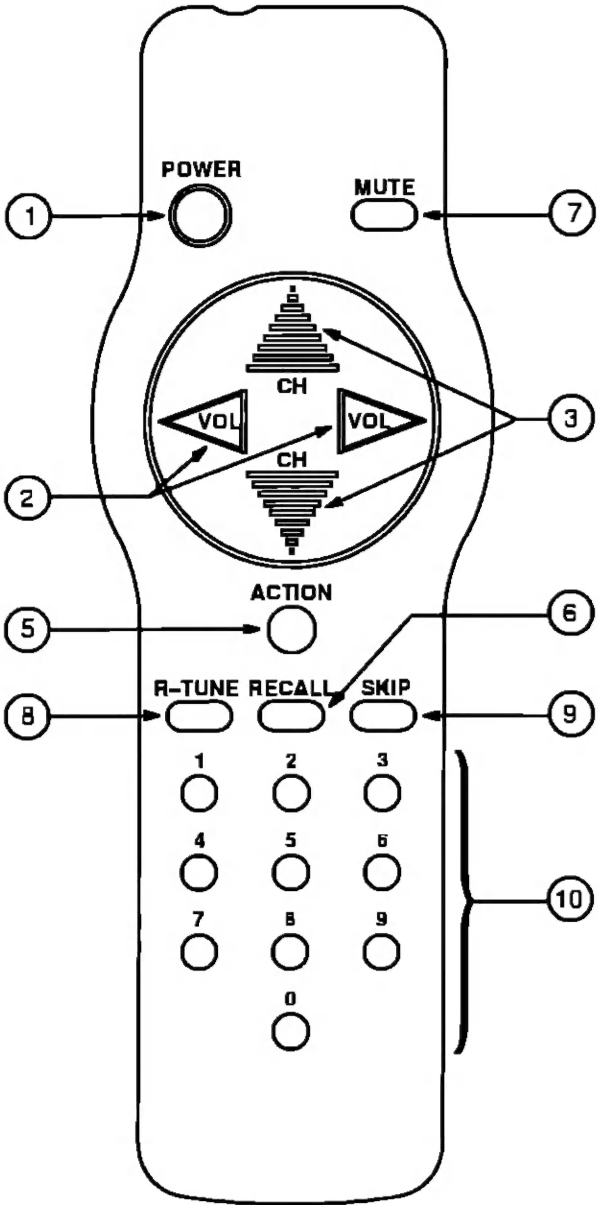
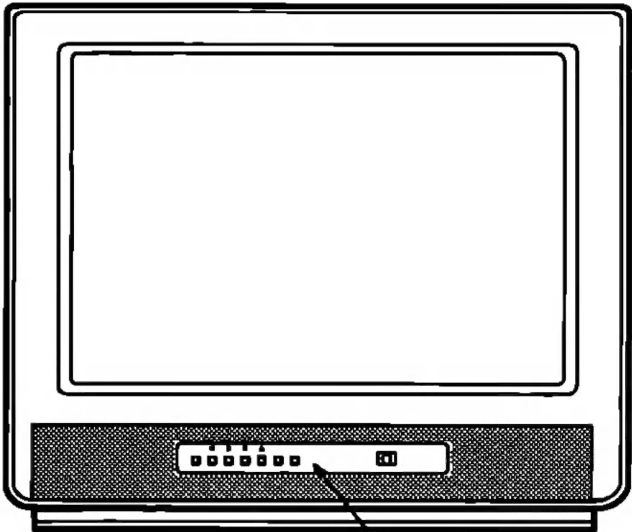
Wood Cabinets

When dusting or polishing the cabinet, use a clean soft cloth and stroke straight with the grain. An occasional coat of furniture polish will help preserve the finish. Do not use benzene, thinners or other petroleum based cleaners. Do not place objects made of plastic or rubber directly on top of the cabinet. A chemical reaction could result causing permanent marring of the finish.

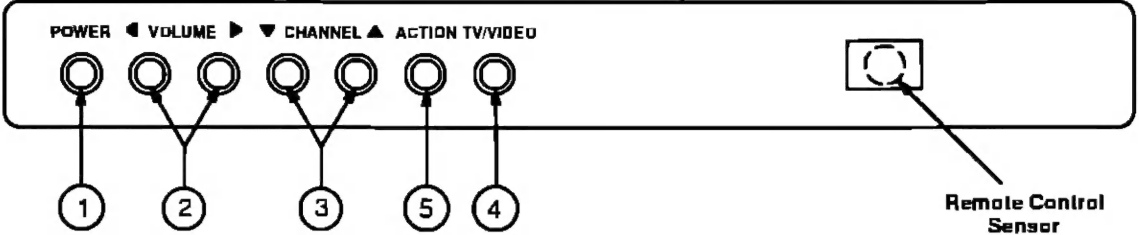
Remote Control Transmitter

Do not use benzene, thinners or other petroleum based cleaners to clean the Remote Control Transmitter. To clean, wipe with a soft cloth slightly moistened with a mild detergent and then wipe dry with a soft clean cloth.

Location of Controls



Monitor/Receiver Control Panel



Quick Reference Control Operation

- ① **Power Button** – Press to turn ON or OFF (p 8)
- ② **VOL (Volume) Buttons** – Press to adjust Sound Level Press to adjust Video Menus and select operating features when menus are displayed (p 8)
- ③ **CH (Channel) Buttons** – Press to select programmed channels Press to select desired features when menus are displayed (p 8)
- ④ **TV/Video Button (On Receiver)** – Press to select TV or Video Input (p 9)
- ⑤ **Action Button** – Press to display Main Menu and access On Screen feature and Adjustment Menus (p 10)
- ⑥ **Recall Button** – Press to display Time, status of Sleep Timer, Channel, Video Mode and Audio Mode (p 9)
- ⑦ **Mute Button** – Press to mute sound A second press returns sound (p 8)
- ⑧ **R-Tune (Rapid Tune) Button** – Press to switch between two channels (p 9)
- ⑨ **Skip Button** – Press the SKIP button repeatedly to select desired time, up to three minutes, then select any other channel(s) or Video Mode When the time elapses you will automatically return to the original channel (p 9)
- ⑩ **Keyboard "0 through 9" Buttons** – Press desired channel number to access any channel (p 8)

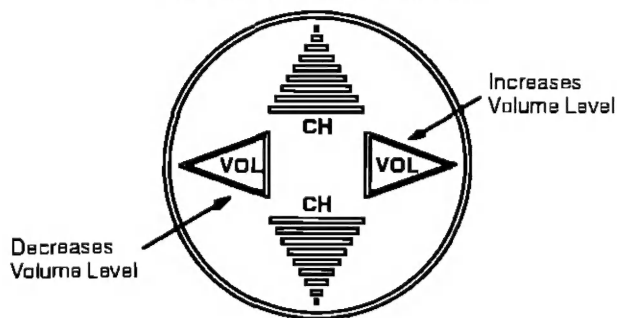
Control Operation

Power — Press the POWER button to turn ON Press again to turn OFF



Volume — Press the VOL (VOLUME) LEFT or RIGHT button for desired listening level (while On Screen Menus are not displayed)

Located On Remote Control

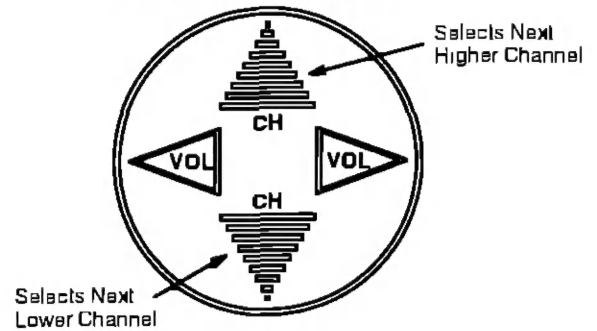


Channel Change — (Two options)

Option 1.

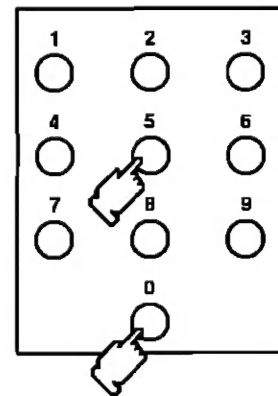
Press the CH (CHANNEL) UP or DOWN button to sequentially scan through programmed channels (while On Screen Menus are not displayed)

Located On Remote Control



Option 2.

Press two digits on keyboard (Example press 0, then 5 for channel 05) For channels over 99, press three digits on keyboard



Helpful Hints:

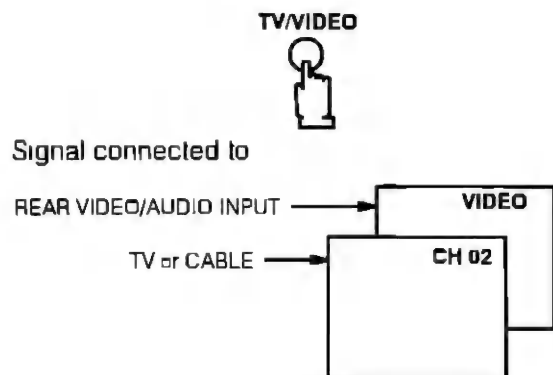
- Helpful information will display On Screen momentarily when Receiver is first turned on and when the channel is changed
- When using keyboard entry for channels 10,11 and 12 in the CABLE mode there is a slight delay before channel change because of the capability of tuning cable channels 100 to 125
- If you do not receive channels above 13, confirm the type of signal at ANT Input (TV or Cable) and set the TV or Cable Tuning Mode accordingly (Refer to Set-Up Feature, Antenna selection)

Mute — Press the MUTE button to quickly reduce sound level (Mute will appear on screen) Press again to restore sound

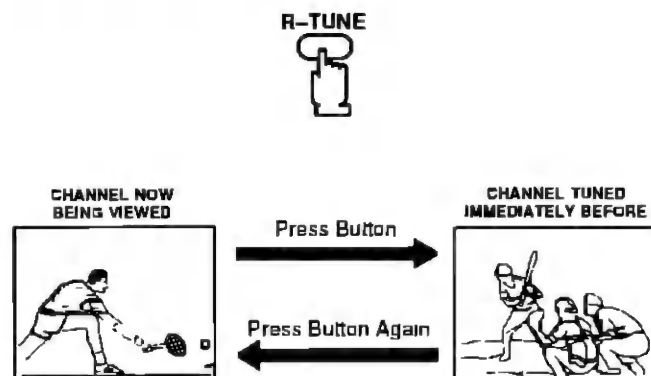


TV/Video — Press the TV/VIDEO button on Receiver to alternately switch between TV and Video mode

- **TV MODE** — Normal TV operation (CH and channel number will display On Screen)
- **VIDEO MODE** — Used when an optional video accessory is connected to either the BNC or S-VIDEO input terminals located on the back of the set (such as a VCR, VIDEO DISC player or VIDEO CAMERA)



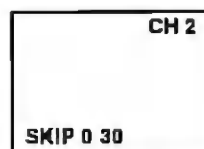
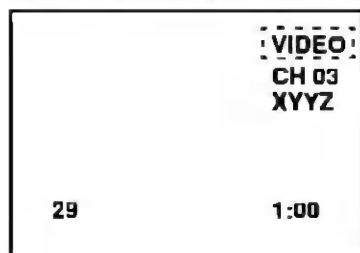
R-Tune (Rapid Tune) — Press the R-TUNE (RAPID TUNE) button to instantly switch between the last two channels selected (without any On Screen display being activated)



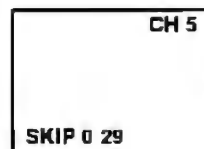
Skip Feature — Press the SKIP button repeatedly to set the Skip Timer for a desired length of time up to 3 minutes. Then change channels or select Video Input. When the set time elapses, the original channel will return.

Recall — Press the RECALL button to review

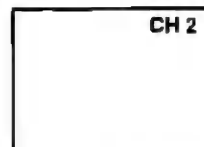
- CH number or Video Input
- Sleep Timer status
- Clock time
- Channel Caption (Station Identifier)



SET SKIP TIMER WHILE WATCHING CHANNEL 2

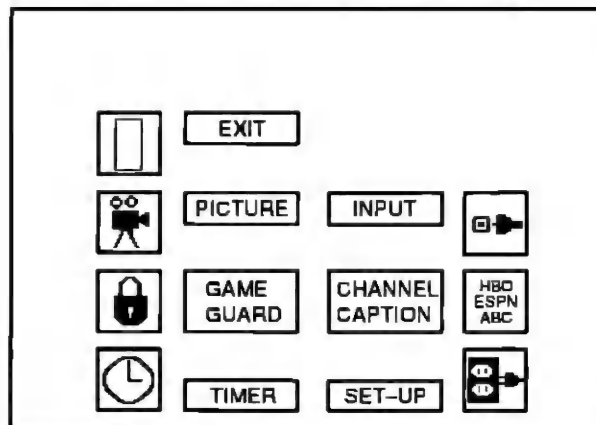


CHANGE CHANNELS, TIMER STARTS TO COUNT DOWN



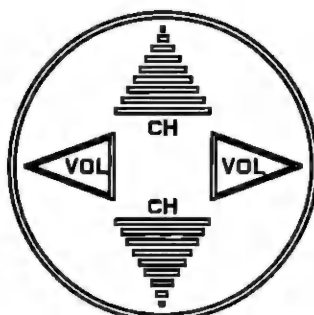
ORIGINAL CHANNEL RETURNS WHEN SET TIME ELAPSES

Main Menu (Icons)



Located On Remote Control

Use the CH UP or DOWN and VOL LEFT or RIGHT buttons to select the desired Icon when the Main Menu is displayed (The selected Icon will be indicated in red)



ACTION



Press the ACTION button to display the Main Menu

- 1 Press the ACTION button to display the Main Menu with Icons
- 2 Press the CH UP or DOWN and the VOL LEFT or RIGHT buttons to select the desired Icon when the Main Menu is displayed
- 3 Press the VOL buttons for left and right movement and the CH buttons for up or down movement
- 4 To exit the Main Menu first select the EXIT Icon, then press the ACTION button

Picture Adjustments

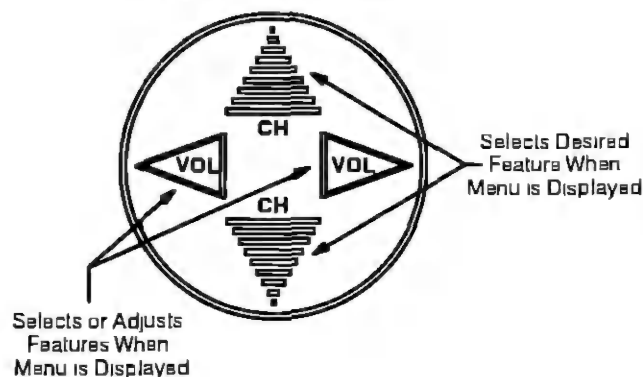
- Color
- Tint
- Brightness
- Picture
- Sharpness

ACTION



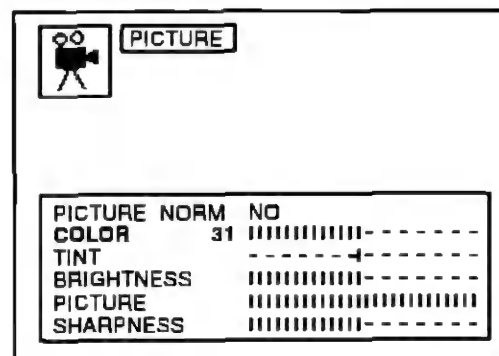
Displays and Exits Menus

Located On Remote Control



Color, Tint, Brightness, Picture & Sharpness Adjustments

- 1 Press the ACTION button to display the Main Menu
- 2 Press the CH DOWN button to select the Picture Icon
- 3 Press the ACTION button to display the Picture Adjustment menu



- 4 Press the CH UP or DOWN button to select the desired Picture Adjustment (Color, Tint, Brightness, Picture or Sharpness)
- 5 Press the VOL LEFT or RIGHT button to adjust your selection
- 6 Repeat steps 4 and 5 for the remaining Picture Adjustments
- 7 Press the ACTION button twice to exit the Picture Adjustment menu

Picture Norm

Pressing the VOL LEFT or RIGHT button while PICTURE NORM is selected will reset Picture Adjustments back to a factory preset level

Helpful Hints:

Picture Adjustments

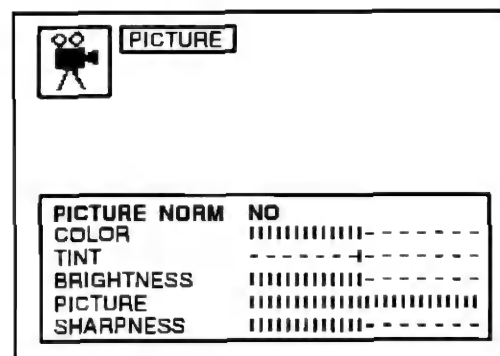
COLOR – adjust for desired color intensity

TINT – adjust for natural flesh tones

BRIGHTNESS – adjust so dark areas of picture just become black for a crisp detail

PICTURE – adjust so the white areas of the picture are to your liking

SHARPNESS – adjust for best clarity of outline detail



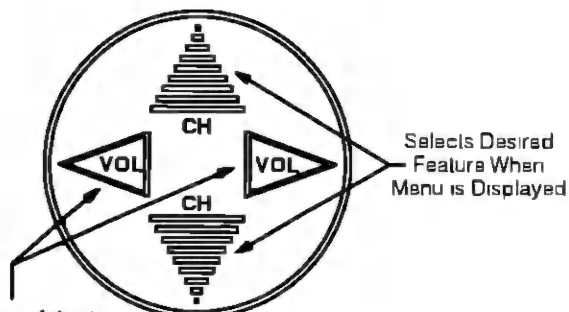
Game Guard

ACTION



Displays and Exits Menus

Located On Remote Control



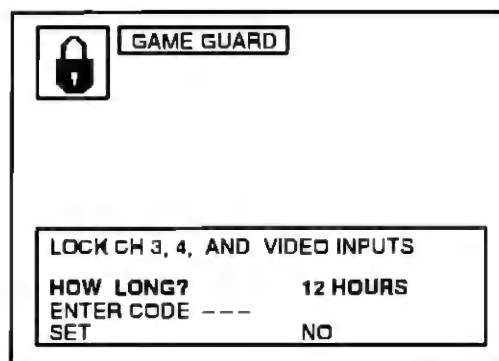
Selects or Adjusts Features When Menu is Displayed

Selects Desired Feature When Menu is Displayed

Game Guard (Lockout) – Prevents video games and other video sources from being viewed. Channel 3, 4 and Video input are locked out for 12, 24 or 48 hours.

NOTE: Be sure to understand this feature before attempting its use. **Use a code that you will easily remember.**

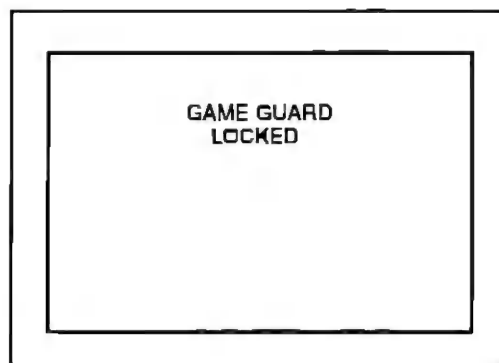
- 1 Press the ACTION button to display the Main Menu
- 2 Press the CH DOWN button to select the Game Guard Icon
- 3 Press the ACTION button to display the Game Guard Menu



- 4 Press the VOL RIGHT button to select the desired hours (12, 24 or 48) for Game Guard (Lockout) to be activated
- 5 Press the CH DOWN button to select "ENTER CODE". Then enter a 3 digit code with the Remote Control Keyboard

Important NOTE: Use a code you can easily remember.

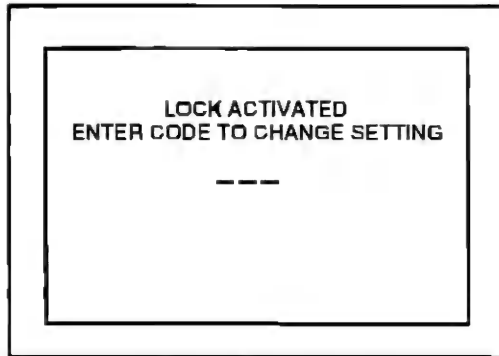
- 6 Press the VOL LEFT or RIGHT button after entering three digit code "Game Guard Locked" will display On Screen



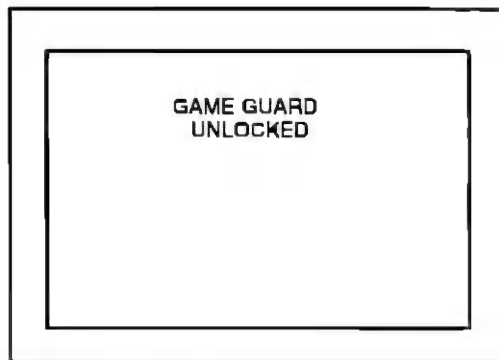
Game Guard Activated

Game Guard (Unlock)

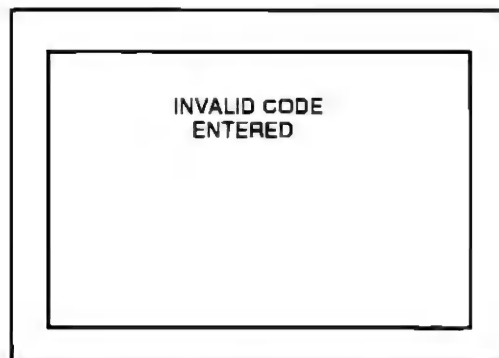
To unlock the Game Guard feature, repeat steps 1 through 3. Enter the same 3 digit code previously used in step 5 with Remote Control Keyboard.



Enter Same 3 Digit Code Previously Used



If 3 Digit Code Is The Same



If 3 Digit Code Is Not The Same

Timer Features

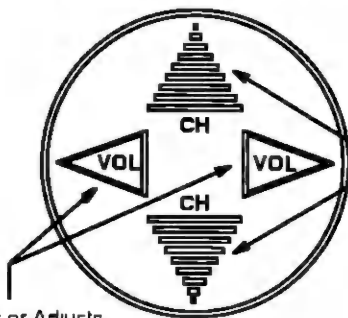
- Sleep Timer
- Program Timer

ACTION



Displays and Exits Menus

Located On Remote Control



Selects or Adjusts
Features When
Menu is Displayed

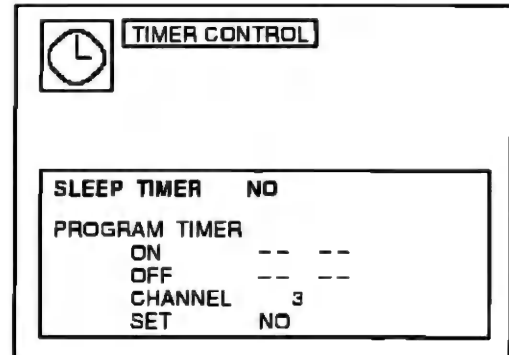
Selects Desired
Feature When
Menu is Displayed

Sleep Timer

This feature is used for automatic turn off in 30, 60 or 90 minutes

NOTE. Display will flash 3, 2 and 1 to indicate the last three remaining minutes prior to turn off. The Recall display will also appear

- 1 Press the ACTION button to display the Main Menu
- 2 Press the CH DOWN button to select the Timer Icon
- 3 Press the ACTION button to display the Timer Control Menu (Sleep Timer will be highlighted)



- 4 Press the VOL RIGHT button to select 30, 60 or 90 minutes (Sleep Timer will be activated)
- 5 Press the ACTION button twice to exit the Timer Control Menu

NOTE. To deactivate Sleep Timer repeat steps 1 through 4. In step 4 select "NO" instead of minutes

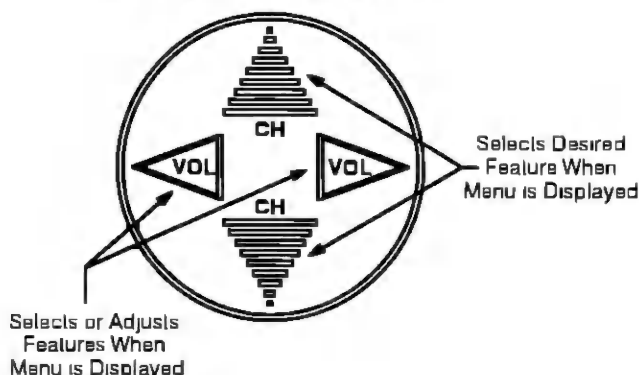
Program Timer

ACTION



Displays and Exits Menus

Located On Remote Control



Helpful Hints:

- If you see "GAME GUARD" in the upper right hand corner, the channel or Video Input you have selected has been locked out
- If the Program Timer "ON" functions while the set is operating, the set will automatically tune to the channel designated in the Timer Program

Program Timer – This feature is capable of turning the TV on, tuned to a desired channel and off at a predetermined time (one day or everyday)

NOTE: The clock must be set for this feature to operate (Refer to the Set-Up Menu to set time)

- 1 Press the ACTION button to display the Main Menu
- 2 Press the CH DOWN button to select the Timer Icon
- 3 Press the ACTION button to display the Timer Control Menu

TIMER CONTROL	
SLEEP TIMER	NO
PROGRAM TIMER	
ON	-- --
OFF	-- --
CHANNEL	3
SET	NO

- 4 Press the CH DOWN button to select "ON" (time)
- 5 Press the VOL LEFT or RIGHT button repeatedly to set hours (set AM/PM accordingly)
- 6 Press the CH DOWN button to select the minutes position
- 7 Press the VOL LEFT or RIGHT button repeatedly to set minutes
- 8 Press the CH DOWN button to select "OFF" (time)
- 9 Repeat steps 5 through 7 for setting "OFF" (time)
- 10 Press the CH DOWN button to select "CHANNEL"
- 11 Press the VOL LEFT or RIGHT button or use the Remote Control Keyboard to enter the channel number desired when the set turns "ON"
- 12 Press the CH DOWN button to select "SET"
- 13 Press the VOL RIGHT button to select
 - NO – not activated
 - ONE DAY – activated
 - EVERY DAY – activated

NOTE To deactivate Program Timer select "NO" in step 13

- 14 Press the ACTION button twice to exit the Timer Control Menu

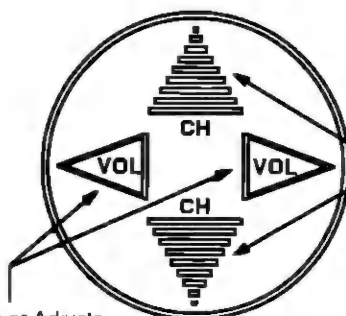
Video Input

ACTION



Displays and Exits Menus

Located On Remote Control

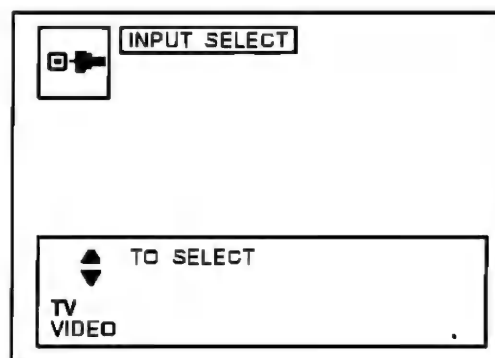


Selects Desired Feature When Menu is Displayed

Selects or Adjusts Features When Menu is Displayed

Video Input – This feature is used to select TV or Video Inputs

- TV MODE – Normal TV operation (CH and channel number will display On Screen)
 - VIDEO MODE – Used when an optional video accessory is connected to either the BNC or S-VIDEO input terminals located on the back of the set (such as a VCR, VIDEO DISC player or VIDEO CAMERA)
- 1 Press the ACTION button to display the Main Menu
 - 2 Press the VOL RIGHT button to select the Input Icon
 - 3 Press the ACTION button to display the Input Select Menu



- 4 Press the CH UP or DOWN button to select "TV" or "VIDEO"

NOTE: The Game Guard feature must be deactivated before selecting Video Input

Helpful Hints:

NOTE. The TV or Video Input Mode may also be selected by pressing the TV/VIDEO button on the Receiver

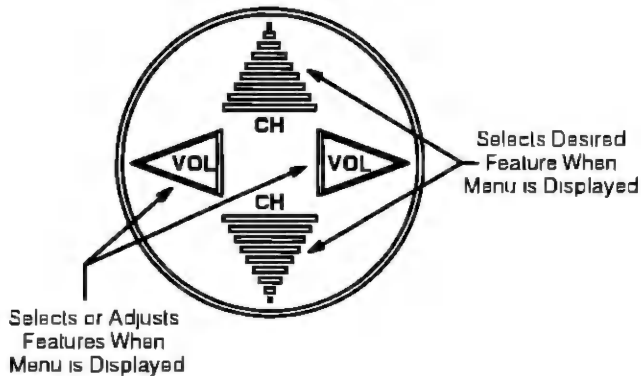
Channel Caption

ACTION



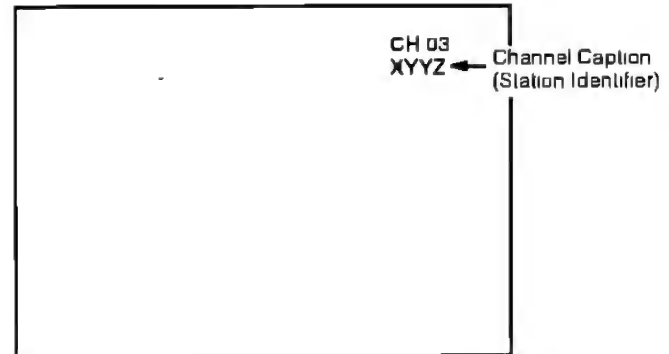
Displays and Exits Menu

Located On Remote Control

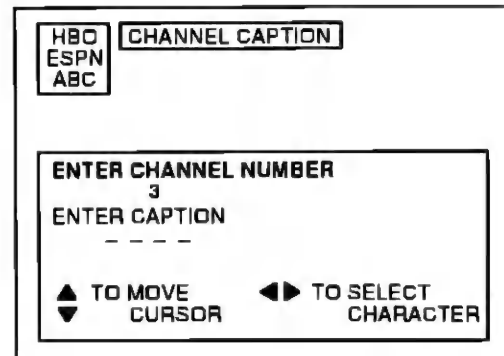


Channel Caption (Station Identifier)

This feature allows you to enter the call names of up to 30 stations into memory (using up to 4 characters for each station) The call name will then display along with the channel number when changing channels or pressing Recall



- 1 Press the ACTION button to display the Main Menu
- 2 Press the CH DOWN and VOL RIGHT buttons to select the Channel Caption Icon
- 3 Press the ACTION button to display the Channel Caption Menu



Helpful Hints:

When the maximum amount of station identifiers are entered, "FULL" will be displayed in the characters position

- 4 Press the VOL LEFT or RIGHT button, or use the Remote Control Keyboard, to enter channel number you wish to assign a Station Identifier
- 5 Press the CH DOWN button to select "ENTER CAPTION"
- 6 Press the VOL LEFT or RIGHT button to select first character in Station Identifier. Then press the CH DOWN button to move cursor to the second position and repeat until the complete Station Identifier is entered (up to 4 characters)
- 7 Press the CH UP or DOWN button to select "ENTER CHANNEL NUMBER". Then repeat steps 4 through 6 to continue adding Channel Station Identifier(s)
- 8 Press the ACTION button twice to exit the Channel Caption Menu

NOTE To delete a Channel Caption (Station Identifier) from memory all four character positions must display dash mark (-)

Set-Up Features

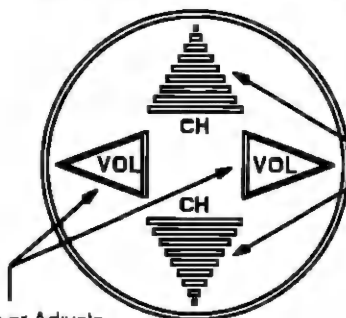
- Menu
- CC (Closed Caption) on Mute
- Set Time
- Antenna (TV or Cable)
- Auto Program
- Manual Program
- CC (Closed Caption) Mode

ACTION



Displays and Exits Menus

Located On Remote Control

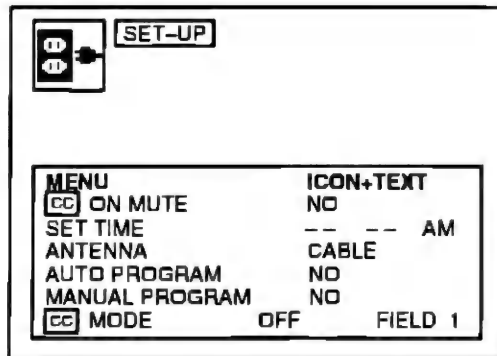


Selects or Adjusts Features When Menu is Displayed

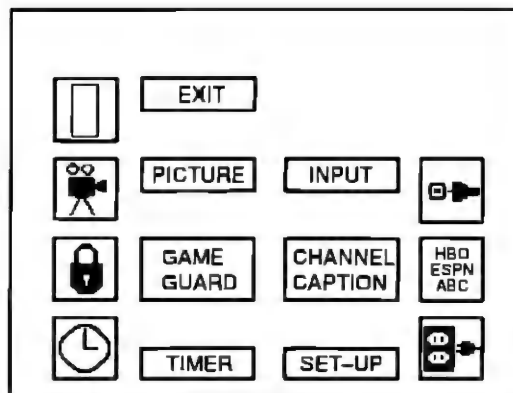
Selects Desired Feature When Menu is Displayed

Menu — The Main Menu can be displayed in two formats Icon with Text or Icon without Text for those familiar with the Icon system

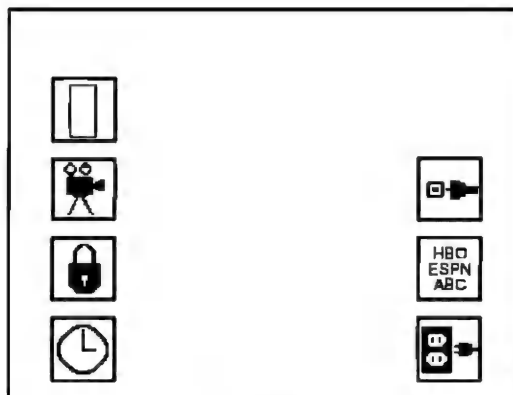
- 1 Press the ACTION button to display the Main Menu
- 2 Press the CH DOWN and VOL RIGHT buttons to select the Set-Up Icon
- 3 Press the ACTION button to display the Set-Up Menu



- 4 Press the VOL LEFT or RIGHT button to select ICON with TEXT or ICON only
- 5 Press the ACTION button twice to exit Set-Up Menu



Icon with Text



Icon (Only)

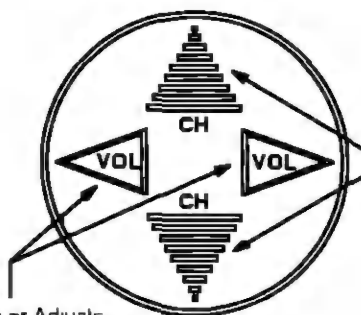
CC On Mute

ACTION



Displays and Exits Menus

Located On Remote Control



Selects Desired Feature When Menu is Displayed

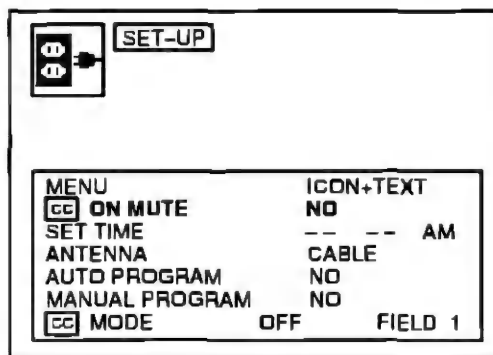
Selects or Adjusts Features When Menu is Displayed

Closed Caption with Mute Button –

Activates the On Screen Closed Captioning when the MUTE button on the Remote Control is pressed. To deactivate, press the MUTE button again.

NOTE: This feature only functions when the Close Caption Mode is in the "OFF" position. The program being viewed must be broadcast with Closed Caption.

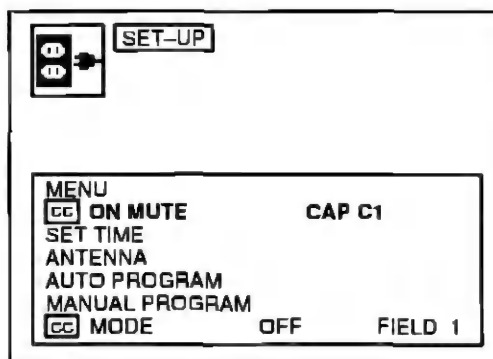
- 1 Press the ACTION button to display the Main Menu
- 2 Press the CH DOWN and VOL RIGHT buttons to select the Set-Up Icon
- 3 Press the ACTION button to display the Set-Up Menu



- 4 Press the CH DOWN button to select "CC ON MUTE"
- 5 Press the VOL RIGHT button to select NO (OFF), CAP C1 or CAP C2

Recommended Set-Up

- 1 Place CC ON Mute into the CAP C1 mode
- 2 Press the CH DOWN button to select "CC MODE"
- 3 Press the VOL RIGHT button to select "OFF"
- 4 Press the CH DOWN button to select the Field position
- 5 Press the VOL LEFT or RIGHT button to select "Field 1"



- 6 Press the ACTION button twice to exit Set-Up Menu
- 7 Press the MUTE button when the program being viewed is broadcast with Closed Caption to activate, press again to deactivate

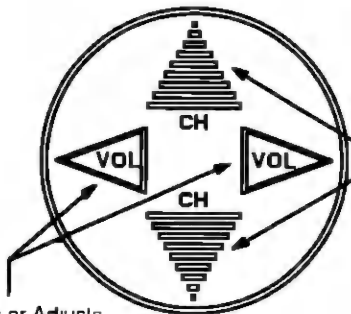
Set Time (Clock)

ACTION



Displays and Exits Menus

Located On Remote Control

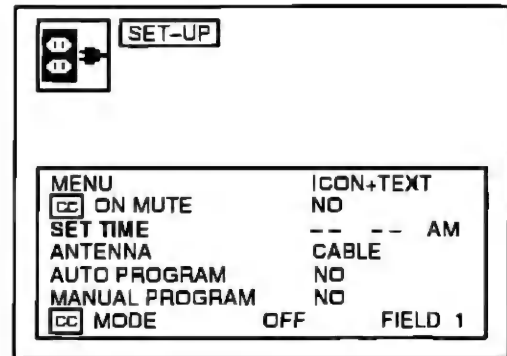


Selects or Adjusts
Features When
Menu is Displayed

Selects Desired
Feature When
Menu is Displayed

Set Clock – Clock (when set) will display on screen at initial "Turn On", after a channel change and when pressing the RECALL button. The time must be set first in order to operate the Program ON/OFF Timer.

- 1 Press the ACTION button to display the Main Menu
- 2 Press the CH DOWN and VOL RIGHT buttons to select the Set-Up Icon
- 3 Press the ACTION button to display the Set-Up Menu



- 4 Press the CH DOWN button to select "Set Time"
- 5 Press the VOL LEFT or RIGHT button to set hours (set AM/PM accordingly)
- 6 Press the CH DOWN button to select minutes position
- 7 Press the VOL LEFT or RIGHT button repeatedly to set minutes
- 8 Press the ACTION button twice to exit Set-Up Menu

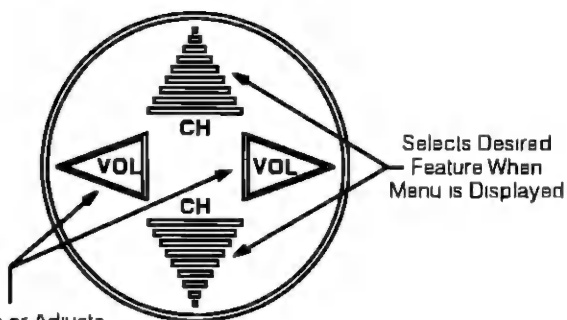
Antenna Mode

ACTION



Displays and Exits Menus

Located On Remote Control

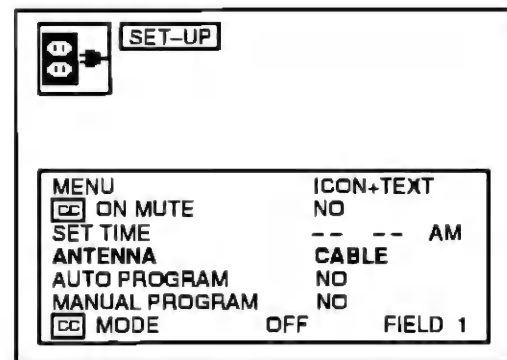


Selects or Adjusts
Features When
Menu is Displayed

Selects Desired
Feature When
Menu is Displayed

TV or Cable Tuning Mode — The proper Input mode must be selected for the type of signal at the antenna input

- TV mode is used when the Receiver is not connected to a cable TV system, for example when using a VHF/UHF antenna (channels 02 – 69)
 - Cable mode is used when the Receiver is connected to a Cable TV system and you are not using a cable company converter box (channels 01 – 125)
- 1 Press the ACTION button to display the Main Menu
 - 2 Press the CH DOWN and VOL RIGHT buttons to select the Set-Up Icon
 - 3 Press the ACTION button to display the Set-Up Menu



- 4 Press the CH DOWN button to select "ANTENNA"
- 5 Press the VOL LEFT or RIGHT button to select TV or CABLE
- 6 Press the ACTION button twice to exit Set-Up Menu

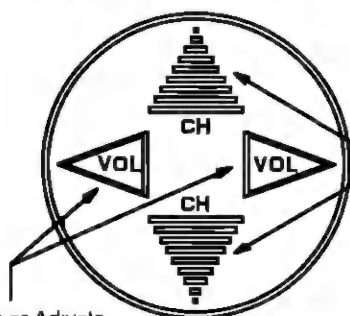
Auto Program

ACTION



Displays and Exits Menus

Located On Remote Control

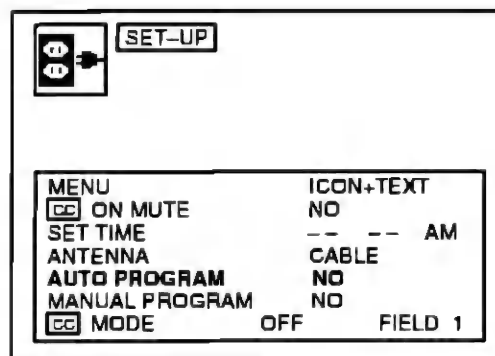


Selects or Adjusts Features When Menu is Displayed

Selects Desired Feature When Menu is Displayed

Auto Programming – This feature allows you to place all channels with a video signal into Channel Scan Memory. Press the CHANNEL (CH) UP or DOWN button and only those channels with a signal will be accessed.

- 1 Press the ACTION button to display the Main Menu
- 2 Press the CH DOWN and VOL RIGHT buttons to select the Set-Up Icon
- 3 Press the ACTION button to display the Set-Up Menu



- 4 Press the CH DOWN button to select "AUTO PROGRAM"
- 5 Press the VOL LEFT or RIGHT button to start Auto Programming. Channels will automatically advance until all channels have been scanned.
- 6 Press the ACTION button twice after completion of Auto Programming to exit Set-Up Menu.

NOTE Channel numbers with signal present will turn blue which indicates stored in Channel Scan Memory.

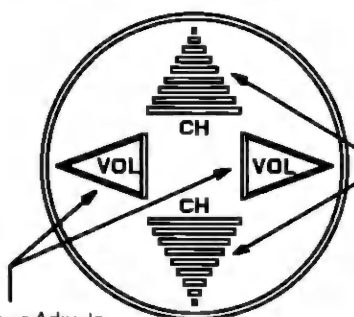
Manual Program

ACTION



Displays and Exits Menus

Located On Remote Control



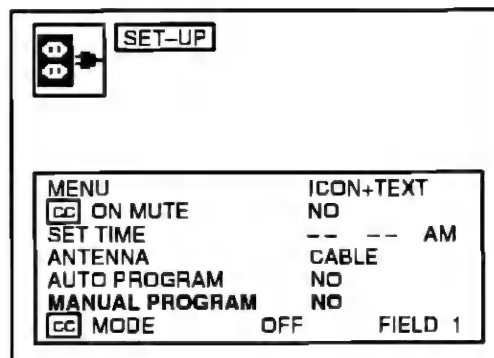
Selects or Adjusts
Features When
Menu is Displayed

Selects Desired
Feature When
Menu is Displayed

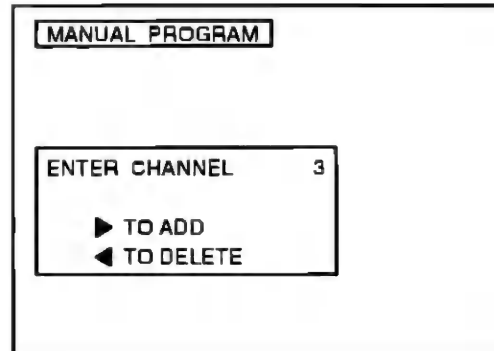
Manual Programming

This feature allows you to select which channels are placed into Channel Scan Memory. Press the CHANNEL (CH) UP or DOWN button and only those channels will be accessed

- 1 Press the ACTION button to display the Main Menu
- 2 Press the CH DOWN and VOL RIGHT buttons to select the Set-Up Icon
- 3 Press the ACTION button to display the Set-Up Menu



- 4 Press the CH DOWN button to select "Manual Program"
- 5 Press the VOL LEFT or RIGHT button to display the Manual Programming Menu



- 6 Use the CH UP or DOWN button or the Remote Keyboard "0 through 9" buttons to select channels
- 7 Press the VOL RIGHT button to add channel(s) to memory (Blue) Press the VOL LEFT button to delete channels from memory (Yellow)
- 8 Repeat steps 6 and 7 to continue adding or deleting channels
- 9 Press the ACTION button twice to exit the Manual Programming Menu

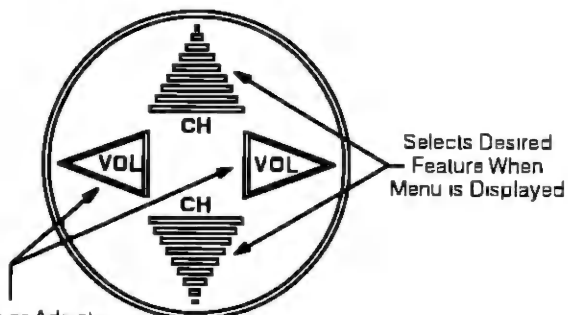
CC Mode

ACTION



Displays and Exits Menus

Located On Remote Control



Selects or Adjusts
Features When
Menu is Displayed

Selects Desired
Feature When
Menu is Displayed

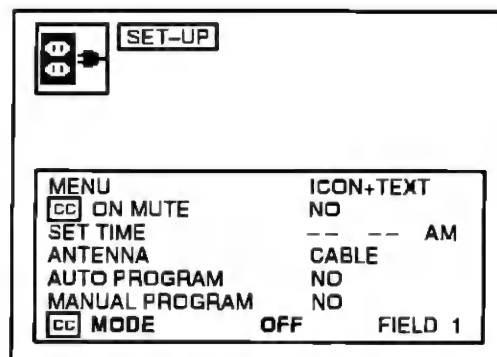
Helpful Hints:

- Closed Caption information may be transmitted on either or both Caption Fields
- Most Closed Caption information is transmitted on Field 1 in Cap C1 Mode
- De-select Text mode if large portion of the picture is blanked out

Closed Caption Mode

This Receiver has a built in decoder that provides a visual depiction of the audio portion of a television program in the form of written words across the screen (White or Colored letters on a black background). It allows the viewer to read the dialogue of a television program or other information.

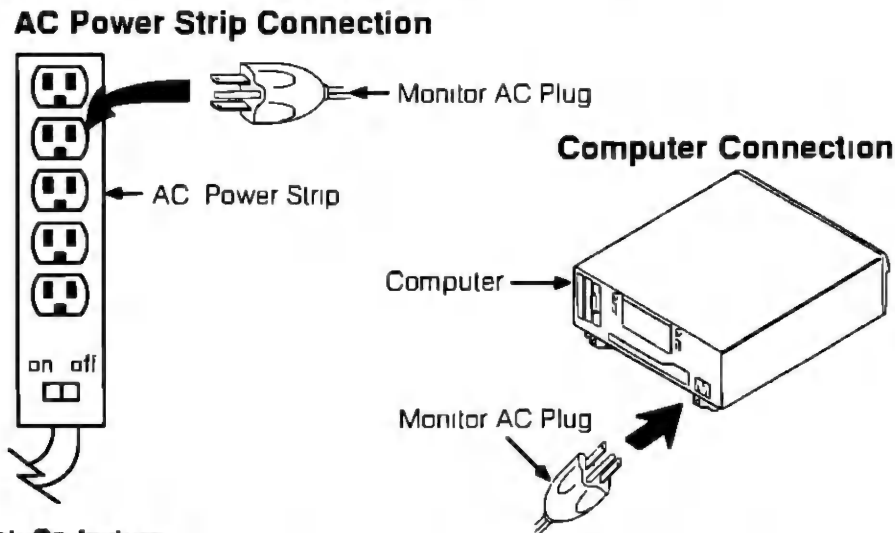
- 1 Press the ACTION button to display the Main Menu
- 2 Press the CH DOWN and VOL RIGHT buttons to select the Set-Up Icon
- 3 Press the ACTION button to display the Set-Up Menu



- 4 Press the CH DOWN button to select "CC MODE"
 - 5 Press the VOL RIGHT button to select OFF, CAP C1, TEXT C1, CAP C2 or TEXT C2
 - 6 Press the CH DOWN button to select the Field position
 - 7 Press the VOL LEFT or RIGHT button to select "FIELD 1" or "FIELD 2"
 - 8 Press the ACTION button twice to exit the Set-Up Menu
- **CAPTION OFF** – Recommended mode when you do not wish to view Closed Caption
 - **CAPTION C1** – For video related information that can be displayed (up to 4 lines of script strategically placed on the television screen so that it does not obstruct relevant parts of the picture) Script can be in any language
 - **TEXT C1** – Blanks out a large portion of the picture on the television screen, and displays program guide or any other information currently being transmitted
 - **CAPTION C2** – Another mode used for video related information that can be displayed (up to 4 lines of script strategically placed on the television screen so that it does not obstruct relevant parts of the picture)
 - **TEXT C2** – Another mode which displays information and blanks out a large portion of the picture on the television screen

Instant-On Feature

This Monitor/Receiver has an Instant-On feature which automatically turns the unit ON when AC power is supplied. This feature initiates the Monitor/Receiver to turn ON automatically when using it with other equipment connected to a main power supply switch (Such as AC power strip or when plugged directly into the back of a computer). Once initial power has been supplied and the Monitor/Receiver turns ON, the POWER switch located on the front of the Monitor/Receiver may be used to turn the Monitor/Receiver OFF and ON as desired.



Procedure for Instant-On feature

With the Monitor/Receiver turned ON, press the ACTION and VOLUME DOWN buttons (on the Monitor/Receiver) simultaneously, then press the ACTION and CHANNEL DOWN buttons (on the Monitor/Receiver) simultaneously. This will activate the Instant-On feature, to deactivate repeat procedure.

NOTE: There will be no On Screen display.

To confirm if the Instant-On feature is activated, turn the Monitor/Receiver OFF, then unplug it and plug it back in. The Monitor/Receiver should turn ON automatically.

Keyboard Lock Feature

Procedure for Keyboard Lock feature

With the Monitor/Receiver turned ON, press the ACTION and VOLUME UP buttons (on the Monitor/Receiver) simultaneously, then press the ACTION and CHANNEL UP buttons (on the Monitor/Receiver) simultaneously. This will activate the Keyboard Lock feature. To deactivate, repeat procedure.

NOTE: There will be no On Screen display.

To confirm if the Keyboard Lock feature is activated, press any button (on the Monitor/Receiver) other than the POWER button (this button is never disabled).

Optional Equipment Connection & Operation

Video/Audio In & Out Connections

The IN and OUT Terminals located on the back of the Monitor/Receiver directly pass the input signals back out of the Monitor/Receiver, so you may monitor or record the external Audio/Video information

Operation

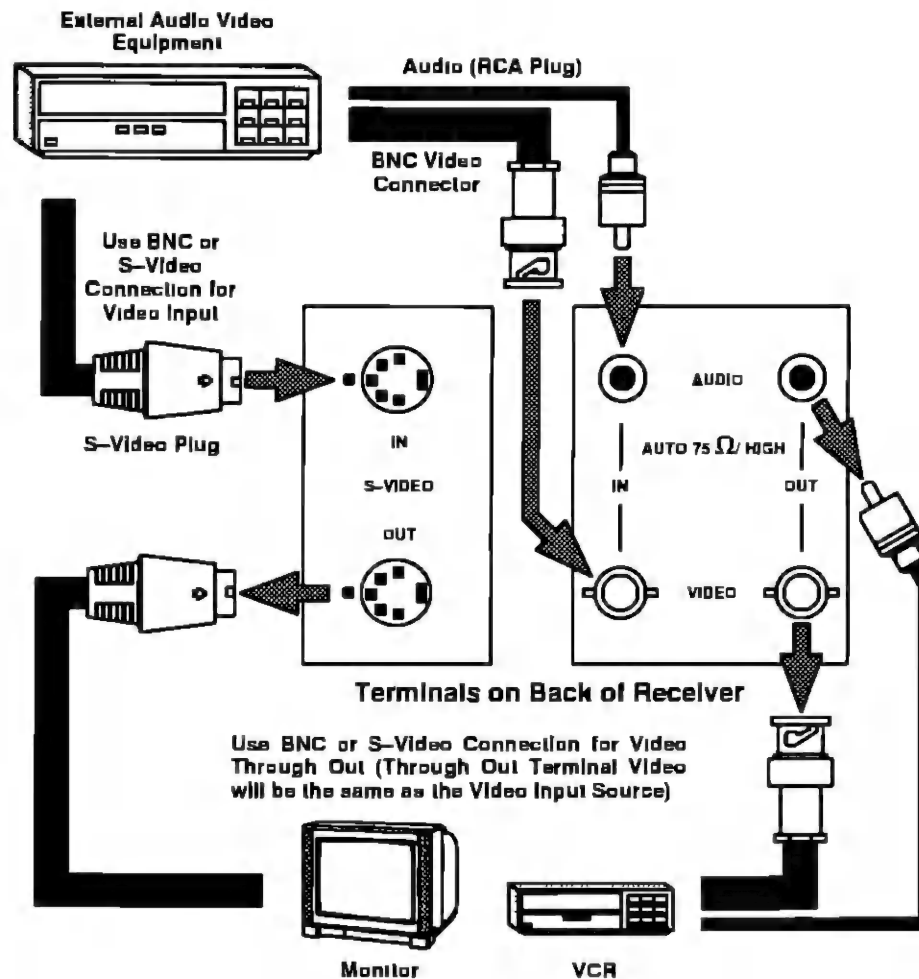
- 1 Connect an external Audio/Video source to the Monitor/Receiver input terminals as shown
- 2 Connect THROUGH OUT jacks to a Monitor or VCR as shown
- 3 Press the TV/VIDEO button to select Video Mode

TV – Monitor/Receiver will be operating with "off the air signals" (signal received through the VHF/UHF terminal) The THROUGH OUT jacks will provide the external Audio/Video signal for monitoring or recording

VIDEO – Monitor/Receiver will be operating with the external Audio/Video signals The THROUGH OUT jacks will provide the same signals for monitoring or recording

NOTE

- 1 When an S-VIDEO plug is connected, the Video BNC terminals are automatically disconnected
- 2 Optional video accessory with Stereo must be placed in monaural operating mode for proper audio response
- 3 The OUT terminals will operate if the Monitor/Receiver is ON or OFF

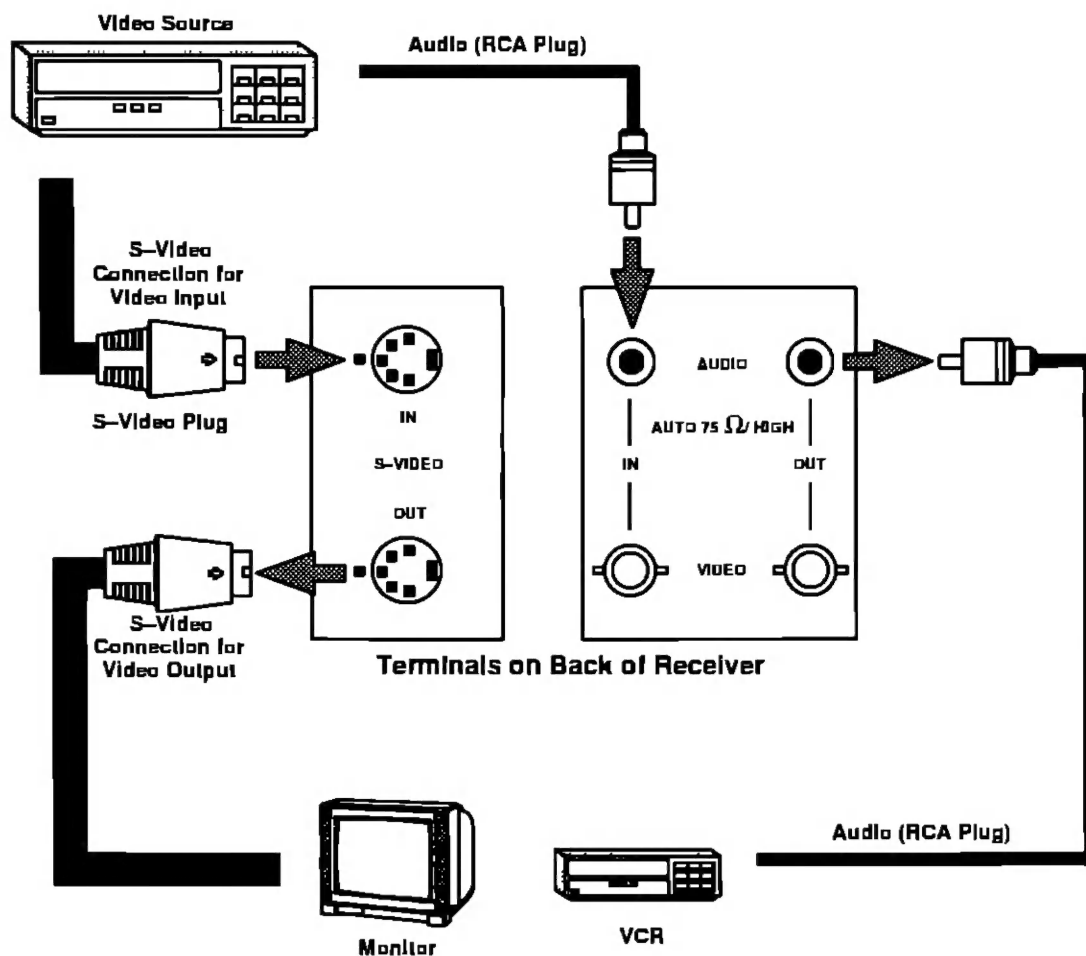


S-Video In/Out Connections

NOTE Connection of Optional S-Video Input jack automatically disconnects the BNC Video Input jack

Operation For S-Video Input

- 1 Make connection to the S-VIDEO INPUT jack, also the AUDIO INPUT jack as shown
- 2 Connect S-VIDEO to Video Source as shown
- 3 Press the TV/VIDEO button to select Video Mode
- 4 Operate optional equipment (VCR-VDP) as instructed in Optional Equipment Manual













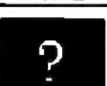







Operation For S-Video Output

NOTE The S-Video Through Out terminal video will be the same as the S-Video Input source

- 1 Make connection to the S-VIDEO OUTPUT jack, also the AUDIO OUTPUT jack as shown
- 2 Connect S-VIDEO Output to a Monitor or VCR as shown
- 3 Press the TV/VIDEO button to select Video Mode
- 4 Operate optional equipment (VCR-VDP) as instructed in Optional Equipment Manual

Troubleshooting Chart

Before you call for service, determine the symptoms and make a few simple checks shown below

Symptoms		Check
Picture	Sound	
 SNOWY PICTURE	 NOISY SOUND	<ul style="list-style-type: none"> - ANTENNA LOCATION AND/OR CONNECTION
 MULTIPLE IMAGE	 NORMAL SOUND	<ul style="list-style-type: none"> - ANTENNA DIRECTION AND/OR LOCATION - ANTENNA LEAD-IN WIRE
 INTERFERENCE	 NOISY SOUND	<ul style="list-style-type: none"> - ELECTRICAL APPLIANCES LIGHTS CARS AND TRUCKS - DIATHERMY AND OTHER MEDICAL EQUIPMENT
 NORMAL PICTURE	 NO SOUND	<ul style="list-style-type: none"> - VOLUME CONTROL SETTING - MUTE CONTROL (IF APPLICABLE) - TRY ANOTHER CHANNEL - TV SPEAKERS (IF APPLICABLE) IN THE OFF MODE
 NO VIDEO	 NOISY SOUND	<ul style="list-style-type: none"> - TV OR CABLE TUNING MODE SET TO PROPER SETTING - ANTENNA INPUT CORRECT (IF APPLICABLE)
 NO PICTURE	 NO SOUND	<ul style="list-style-type: none"> - CHECK THAT AC POWER LINE IS PLUGGED INTO AC OUTLET - BRIGHTNESS & AUDIO CONTROLS SET PROPERLY - TRY ANOTHER CHANNEL
 NO COLOR	 NORMAL SOUND	<ul style="list-style-type: none"> - COLOR CONTROL SETTINGS - TRY ANOTHER CHANNEL
 BLUE PICTURE	 NO SOUND	<ul style="list-style-type: none"> - RECEIVER IN VIDEO MODE WITH NO SIGNAL
 BLACK BOX IN PICTURE	 SOUND	<ul style="list-style-type: none"> - CC (CLOSED CAPTION) IN TEXT MODE - SELECT CLOSED CAPTION OFF MODE TO ELIMINATE BLACK BOX

Should this unit turn ON momentarily and then turn OFF or fail to operate unplug the AC cord and contact your Authorized Servicer for repairs

Prolonged power interruption causes the following features to reset to their factory preset state.

FEATURE POWER CLOCK	FACTORY PRESET STATE OFF NOT SET	FEATURE SLEEP TIMER	FACTORY PRESET STATE NO/OFF OFF
----------------------------------	---	-------------------------------	--

Notes:



BROADCAST AND TELEVISION SYSTEMS

PANASONIC BROADCAST AND TELEVISION SYSTEMS COMPANY

Division of Matsushita Electric Corporation of America

Executive Office

One Panasonic Way, Secaucus, New Jersey, 07094 (201) 348-7000

BTS Division Executive Office One Panasonic Way, Secaucus, New Jersey 07094 (201) 348-7000

GSA Order Department One Panasonic Way, Secaucus New Jersey 07094 (201) 348-7860

Eastern Regional Sales Office Panasonic BTS 43 Hartz Way Secaucus New Jersey 07094 (201) 348-7620

Midwest Regional Sales Office, Panasonic BTS 1707 North Randall Road, Elgin, Illinois 60123 (708) 468-5200

Southeast Regional Sales Office Panasonic BTS, 1854 Shackelford Court, Suite 115 Norcross, Georgia 30093 (404) 717-6841

Southwest Regional Sales Office, Panasonic BTS 4500 Amon Carter Boulevard, Fort Worth, Texas 76155 (817) 685-1117

Western Regional Sales Office Panasonic BTS, 6550 Kalella Avenue, Cypress California 90630 (714) 373-7275

Northwest Regional Sales Office, Panasonic BTS The AGC Building, 1200 Westlake Avenue North Suite 508, Seattle, WA 98109 (206) 285-8883

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